SYSTEM, METHOD, AND APPARATUS FOR CLOTHING A PET

FIELD

This invention relates to the field of pets and more particularly to a system for analyzing images of a pet and selecting a pet clothing size.

BACKGROUND

Throughout the world, pets have become a part of their owner's family. It is estimated that 85 million families in the United States alone have one or more pets. Many pet owners like to adorn their pets with clothing and accessories, not only for weather, but for fashion and special occasions such as holidays. This has led to a growing pet industry, estimated at over $72 billion in 2018 (U.S. only), with around $8B of that market being online.

A large part of the pet fashion or clothing industry is online, for several reasons. For one, there is a huge variance in pet sizes. For example, in 2018, there were around 202 breeds of dogs alone according to the American Kennel Club, though some estimate are as high as 340. Each breed has its own size and shape characteristic along with typical hair length. To compound the issue even further, there are many mixes of breeds (mutts) as well. As for cats, estimates are around 45 breeds. The variations in size, hair length, and proportions makes sizing very difficult. To compound the issue even more, different pet clothing brands do not agree on standard sizes, so a size-medium from one brand is often different than a size-medium form another brand.

For humans, there are maybe around 5 shirt sizes (e.g., small, medium, large, x-large, xx-large), but for pets, such sizes are not simple. Consider two small dogs like a Miniature Dachshund (8-11 pounds) and an Affenpinscher (6-13 pounds) that both weigh 10 pounds. It is hard to believe that the same, "small," dog shirt would fit both of these animals as the Affenpinscher has a much shorter length (around 12 inches) and much longer hair than the miniature Dachshund (around 16 inches). Therefore, many more sizes of clothing are required for pets. Multiply this by many colors and styles and this creates a huge stocking issue at brick-and-mortar establishments.

Another reason why a large part of the pet fashion or clothing industry is online has to do with pet temperament. There are certain breeds or individual pets that are well behaved when visiting a pet superstore, but some are too aggressive while some are difficult to control. Some will not hold still for sizing a pet outfit.

Given the reasons above, the ideal place to buy pet fashion or clothing is online as a single marketer is able to stock or access many different sizes, colors, and styles of pet clothing. Unfortunately, because there is so much uniqueness of each pet; it is difficult to categorize the size of one's pet when ordering clothing online. In order to size a pet for an outfit, around 11 measurements must be made such as diameter of hind leg, length of hind leg, length of torso, diameter of neck, length of front leg, diameter of chest, etc. As with a human suit of clothing, the knowledge of a tailor is required to know exactly from where to where each measurement must be taken. This coupled with a total lack of cooperation from many pets makes it almost impossible to obtain proper sizing measurements.

Further, a pet outfit shown on one animal might not look as nice when it arrives and the pet owner tries that outfit on their pet.

Therefore, the online pet clothing industry is hampered by a large percentage of returns, frustrating consumers an adding shipping costs that are usually born by the online marketing company, which must increase prices to offset for these costs.

What is needed is a system that will properly size a pet for clothing and accessories.

SUMMARY

A system for accurately determining a size of a pet includes receiving images of the pet (at least three images—front, side, and top are preferred). The system utilizes software (e.g. Artificial Intelligence) to determine a breed of the pet and base sizes of the pet, then the software further hones the base sizes by analysis of the images and, in some embodiments, data from returned merchandise. Once the size is determined, products are presented to the consumer that are in stock and available in the size of the pet.

In one embodiment, a system for approximating sizes for pets is disclosed including a server computer having a database of animals operatively coupled there to. The database of animals has data related to types of animals and base sizes for each animal. A plurality of images of a pet are provided and software that runs on the server receives the plurality of images of the pet, determines which animal in the database of animals is a closest match to the images of the pet, and generates a set of size parameters based upon the base size of the animal in the database of animals that is the closest match as modified by estimates made from the images of the pet.

In another embodiment, a method of determining a size of a pet is disclosed, including receiving at least one image of the pet and determining a breed of the pet from the at least one image using an animal database and generating a base set of sizes of the pet based on the breed of the pet. The base set of sizes is then modified based upon the at least one image of the pet, thereby producing a more accurate set of sizes.

In another embodiment, a system for approximating sizes for pets is disclosed including a server computer and a database of animals operatively coupled to the server. The database of animals has data related to types of animals and base sizes for each animal in the database of animals. Images of the pet are provided (e.g. uploaded) including a side view image of the pet, a front view image of the pet, and an aerial view image of the pet. Software that runs on the server receives the images of the pet, determines which animal in the database of animals is a closest match to the images of the pet, and generates a set of size parameters based upon a starting size of the animal from the database of animals that is the closest match, the software then modifies set of size parameters by estimates made from the images of the pet.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention can be best understood by those having ordinary skill in the art by reference to the following detailed description when considered in conjunction with the accompanying drawings in which:

FIG. **1** illustrates a pet having received the wrong size pet outfit of the prior art.

FIGS. **2-4** illustrate images of a pet taken from the top, front, and side.

FIG. **4**A illustrates a measurement diagram of the prior art.